

REMARKS

In accordance with the foregoing, claims 1, 6, 11 and 15 are amended. No new matter is being presented, and approval and entry are respectfully requested. Claims 1, 4, 6, 9, 11-15 are pending and under consideration. Reconsideration is respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 112

In item 4 on page 2 of the outstanding Office Action, claims 1, 4, 6, 9 and 11-15 are rejected under 35 U.S.C. §112, second paragraph, as allegedly the phrase "hyphen arrangement" is indefinite. Applicants amend herewith the independent claims to clarify that it is determined whether "a plurality of hyphens detected by said search are part of a specified hyphen arrangement." The claim amendments are supported by the originally filed specification. Applicants respectfully remind the Examiner that the claim language is supposed to be given the broadest reasonable interpretation in light of the specification. In view of the claim amendments, Applicants respectfully request that the rejection be withdrawn.

Further, in item 4 on page 3 of the outstanding Office Action, claims 1, 4, 6, 9 and 11-15 are rejected under 35 U.S.C. 112, second paragraph, as allegedly the phrase "account number regularly" is indefinite. Applicants amend herewith the independent claims to clarify that it is determined whether "a result of the character recognition matches any payee account number registered in said document information table." The claim amendments are supported by the originally filed specification. In view of the claim amendments, Applicants respectfully request that the rejection be withdrawn.

CLAIM REJECTIONS UNDER 35 USC § 103

Claims 1, 4, 6, 9 and 11-15 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,097,834 to Krouse et al. (hereinafter "Krouse"), in further view of U.S. Patent No. 6,385,595 to Kolling et al. ("Kolling").

In the "Response to Arguments" section, item 6, the Examiner argues that Krouse teaches "searching for the payee account number in the image data at an unknown position in accordance with an account number searching rule," and "determining a type of the form based on the payee account number from a document information table that stores account numbers correlated with types of the form."

Krouse discloses a recognition method of a document type by scanning the document (col. 12, lines 38-62), extracting the image characteristics (e.g. see Table in column 16 of Krouse, which illustrates some image characteristics), and comparing the image characteristic with reference characteristics in the database (col. 14, line 64- col. 15, line 67) to determine the document type.

The Examiner asserts:

1. Krouse teaches searching various types of documents that contain account numbers in various positions (see lines 5-6 of item 6 in the outstanding Office Action);
2. Krouse teaches searching of the payee account number in the image at various unknown positions (see lines 8-9 of item 6 in the outstanding Office Action); and
3. [Krouse teaches] determining a type of the form based on the payee account number from a document information table that stores account number correlated with types of the form.

Applicants submit that (1) is correct.

Applicants respectfully disagree with statement (2). The portion of Krouse's disclosure indicated as supporting statement (2) actually describes a process of adding a new type of document to the database of recognizable types of documents used in Krouse. In this process, a user may indicate the location of the account number in the newly added type of document. However, as a matter of course, for a document scanned for a financial transaction, Krouse's method does not search the payee account number in the image at various unknown positions.

Further, Applicants respectfully disagree with statement (3). Neither the portions indicated as supporting statement (2), nor the whole Krouse disclosure discloses or renders obvious "a document information table that stores account number correlated with types of the form." Since no such table exists, Krouse does not determine a type of the form based on the payee account number using the table. In fact, Krouse's method recognizes a document type (or format) by comparing recognition characteristics extracted from a scanned image with sets of reference recognition characteristics stored in a database. Once the document type is identified, the account number is read from the position of this type of information in the reference document (whose set of recognition characteristics matched the recognition characteristics of the scanned document).

In the "Response to Arguments" section, item 7, the Examiner admits that Krouse does not render obvious the claimed searching rule but argues that Kolling does. Amended claim 1, clarifies that the "searching rule comprises: searching for hyphens in the image data; judging whether or not a plurality of hyphens detected by said search are part of a specified hyphen arrangement; character- recognizing the image data in areas surrounding the detected hyphens if judged to be part of the specified hyphen arrangement; and determining whether or not a result of the character recognition matches any payee account number registered in said document information table."

Kolling fails to anticipate or render obvious the claimed searching rule because no hyphens are search for in the image data in Kolling. Since no hyphens are searched for, Kolling does not disclose or render obvious "character- recognizing the image data in areas surrounding the detected hyphens if judged to be part of the specified hyphen arrangement" as recited in claim 1. Further, Kolling does not disclose or render obvious any document information table "that stores account numbers correlated with types of the form" as recited in claim 1. Thus, Kolling cannot determine "whether or not a result of the character recognition matches any payee account number registered in said document information table." Therefore, Kolling fails to disclose or suggest that said account number searching rule, as recited in claim 1.

In view of the above, amended independent claim 1 and claims 4, 9, 11, 12 and 14 depending from claim 1, patentably distinguish over the cited prior art.

In view of the above discussion, amended independent claim 6 and claim 13 depending from claim 6 patentably distinguish over the cited prior art at least due to the following features recited in claim 6:

a processing unit, which performs searching for the payee account number in the image data at an unknown position in accordance with an account number searching rule, discriminates a type of form corresponding to said payee account number from a document information table that stores account numbers correlated with types of the form, and recovers other data from locations according to the determined type of the form;

wherein said processing unit searches for hyphens in the image data, judges whether or not a plurality of detected hyphens are part of a specified hyphen arrangement, character- recognizes the image data in areas surrounding the detected hyphens if judged to be part of the specified hyphen arrangement, and determines whether or not a result of the character recognition matches any payee account number registered in said document information table, the matched account number being the payee account number.

Amended independent claim 15 patentably distinguishes over the cited prior art at least by reciting:

searching and determining an account number in an unknown position of the payment form of the unknown type in the image data, by searching for hyphens in the image data, and recognizing said payee account number at areas surrounding hyphens detected in the image data;

determining the payment form type using the account number; and wherein said searching and determining of the account number comprises:

judging whether or not a plurality of hyphens detected by said search are part of a specified hyphen arrangement;

character-recognizing the image data in areas surrounding the searched hyphens if judged to be part of the specified hyphen arrangement; and

determining whether or not a result of the character recognition matches any account number registered in a document information table in correlation with a payment form type, the matched account number being the payee account number.

Claims 12 and 14 are rejected under 35 U.S.C. §103 as allegedly obvious over Krouse, Kolling and U.S. Patent Application Publication No. 2002/0073060 to Geisel et al. ("Geisel").

Claims 12 and 14 depend indirectly from claim 1. Geisel does not correct or compensate for the above-identified failure of Krouse and Kolling to render obvious all the features of amended claim 1. Therefore, the rejection of claims 12 and 14 is traversed and reconsideration is requested.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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